

Green Power Update

IELC Meeting
Seattle, WA

February 17, 2005

Cheri Sayer
U.S. Dept of Energy

Federal Renewable Energy Goal

Goal – 1334 GWh - Equivalent of 2.5% of Federal facility electricity use by 2005

- ❖ equals about 500 MW of wind (at 31% Capacity Factor)

June 2000	173 GWh
<u>Current (9/30/04):</u>	<u>1312 GWh</u>
To Go	22 GWh

Executive Order 13123

■ Section 404c Electricity Use

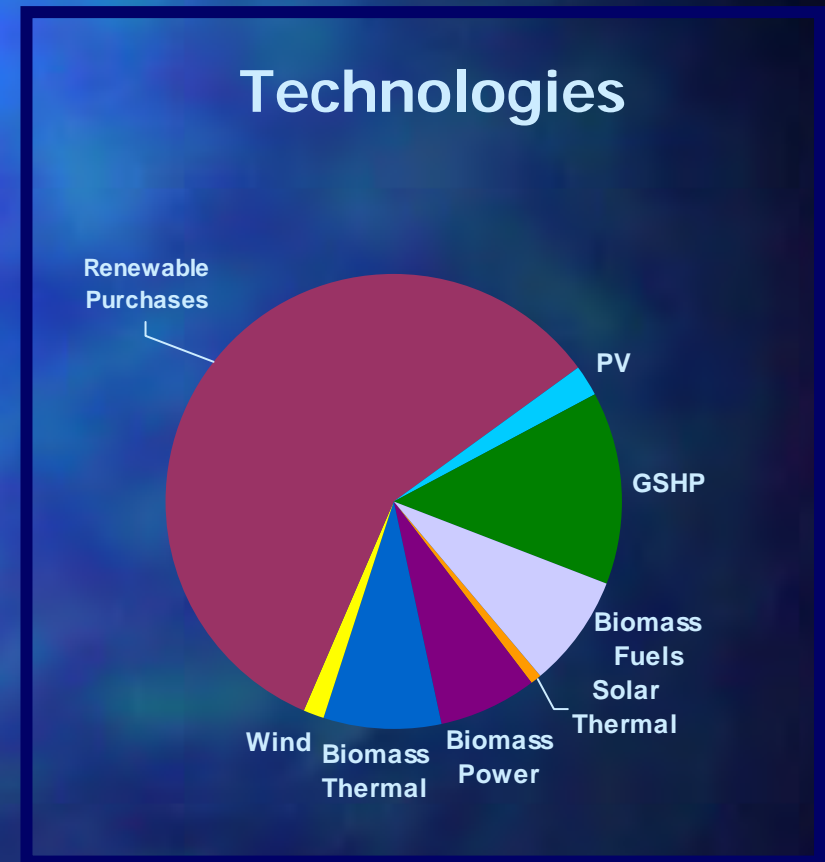
- Include renewable power provisions in electricity RFP's
- Can use energy efficiency savings to pay premium

■ Renewables Goal: 2.5% by end of 2005

- ***“Renewable energy”*** means energy produced by solar, wind, geothermal, and biomass power
- On-site projects or renewable power purchases
- Purchases count towards energy efficiency goals (since only need to report conventional energy use)

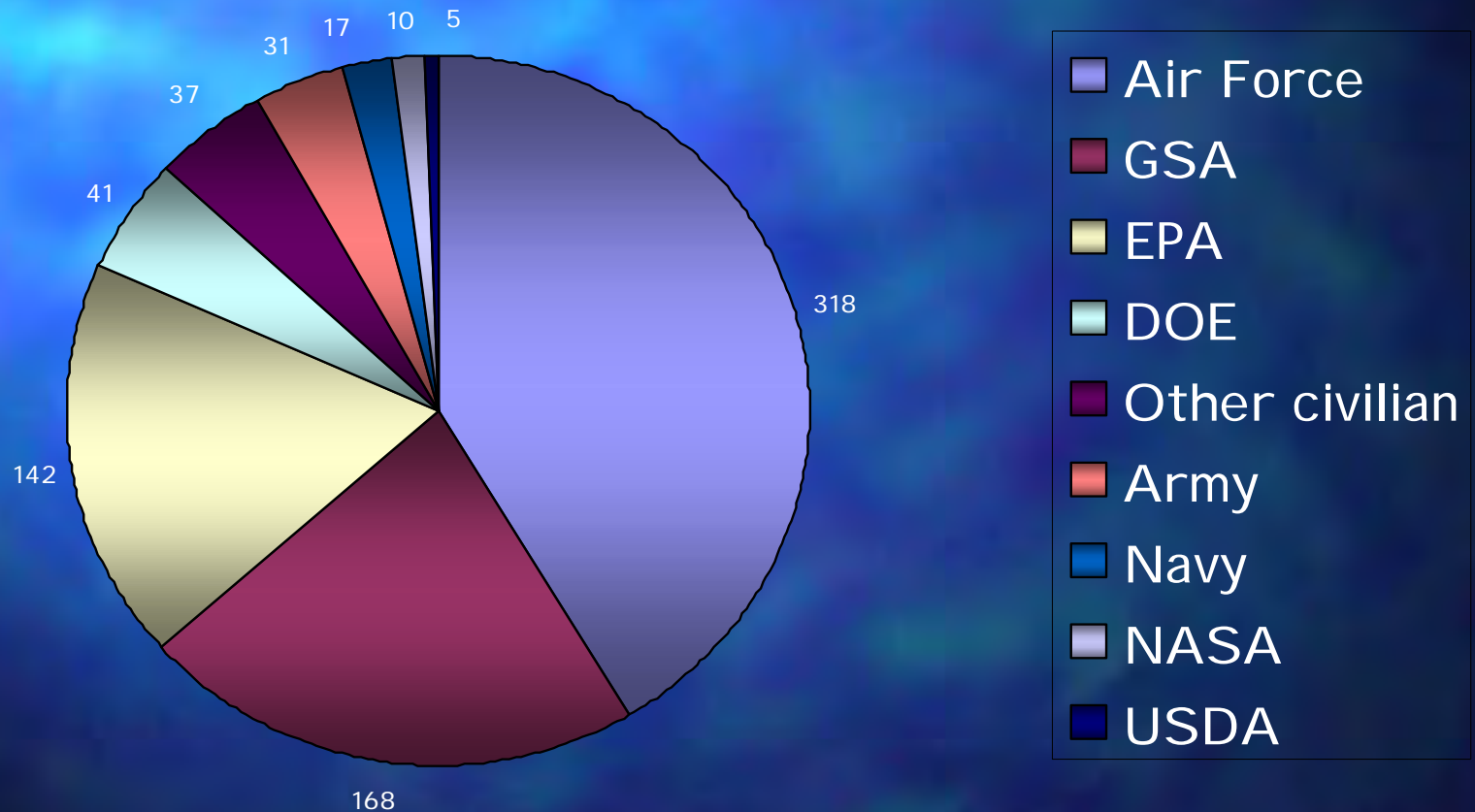
Where We Are: Federal Renewable Technologies and Purchases, Sept 2004

Solar Thermal	10.21	GWh
Biomass Power	92.44	GWh
Biomass Thermal	108.48	GWh
Wind	19.02	GWh
Renewable Purchases	768.30	GWh
Photovoltaics (PV)	28.82	GWh
Ground Source Heat Pump	178.54	GWh
Biomass Fuels	106.36	GWh
TOTAL	1312.16	GWh



Who is Buying Renewable Power?

(As of Sept 2004)

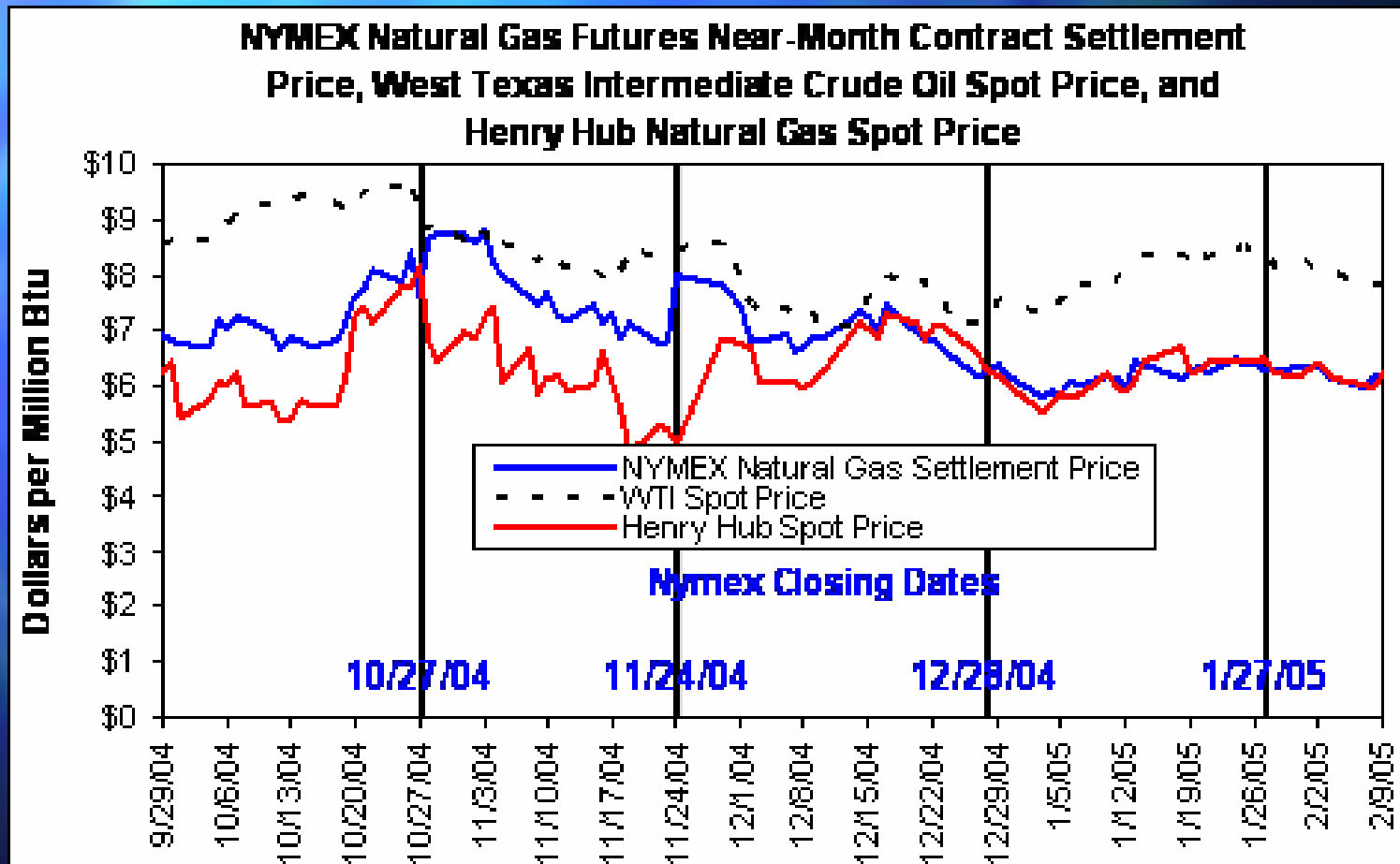


Renewable Projects/Purchasing Update

- Which agencies have met their goals?
 - Air Force, GSA, EPA, NASA
- Puget Sound/WA Activity
 - Fairchild AFB – 65.7 GWH/year thru BPA (combo)
 - Army, Ft Lewis - Power-12 GWH/year - Tacoma Power
 - DOE/PNNL – Power-Increased purchase to 12 GWH/year
 - GSA – Tag purchases for Sea Courthouse & JFB thru SCL and upcoming tag purchase for NW
 - EPA – Manchester Lab – tag purchase (3.3M kwh)
 - FAA – ARTCC, Auburn (50K kwh) thru Puget Power
 - NPS – Mt Rainier, White River Operations Center PV project

Natural Gas Prices

(Dollars per MMBtu)



Note: The West Texas Intermediate crude oil price, in dollars per barrel, is converted to \$/MMBtu using a conversion factor of 5.80 MMBtu per barrel. The dates marked by vertical lines are the NYMEX near-month contract settlement dates.

Source: NGI's *Daily Gas Price Index* (<http://Intelligencepress.com>)

Federal Purchasing Methods

- **Utility/PMA Green Power Purchase**
 - Can be a sole source purchase if with serving utility
- **Solicitation in Competitive Electricity Markets**
 - General Services Administration (GSA)
 - Ken Shutika (202) 260-9713
 - Defense Energy Support Center (DESC)
 - John Nelson (703) 767-8523
- **Renewable Energy Certificates (Tags)**
 - Competitive acquisition rules apply

GSA Supply Schedule

- **Under SIN 871 “Energy Management Services”**
- **Renewable Power** – currently available from SIN 871-204
 - <http://www.gsaelibrary.gsa.gov/ElibMain/SinDetails?executeQuery=YES&scheduleNumber=871+II&flag=&filter=&specialItemNumber=871+204>
- **Renewable Energy Certificates (RECs)** – encouraging suppliers to sign up under 871-299 (one supplier currently available)
 - <http://www.gsaelibrary.gsa.gov/ElibMain/SinDetails?executeQuery=YES&scheduleNumber=871+II&flag=&filter=&specialItemNumber=871+299>
- Supplier spreadsheet available at <http://www.gsa.gov/energyservices>
 - Click on Energy References on left panel and then open “Energy Services Contractors List” (See columns “M” & “N”)

Western Area Power Administration

Federal Renewable Energy Program

EPA – Renewable Energy Certificates

RFP and award for five sites

- ~17 GWH total for San Francisco, 2 in Denver, 2 in Kansas City
- San Francisco (2,275 MWh) awarded to 3 Phases Energy

DOE Support Programs

■ FEMP

- Tracking of agency purchases
- Renewable Working Group
- Technical Assistance for assessments
- Tools and reports
- FEMP annual Energy Awards

2004 renewable award winners = NASA Goddard & Army Korea



■ Geopowering the West

- Expand the geothermal power & green power market
- Raft River, ID, 10MW coming on line next year (Idaho Power)

■ Wind Powering America

- Wind working groups around the region
- Work to site larger projects on public lands (BLM)





U.S. Department of Energy

Energy Efficiency and Renewable Energy*Bringing you a prosperous future where energy is
clean, abundant, reliable, and affordable*

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Federal Energy Management Program

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Renewable Energy

Renewable Energy Basics

Federal Requirements

Project Implementation

Purchasing Renewable Power

Case Studies

Working Group

Resources

Contacts

Related Technologies:

- **Energy-Efficient Products**
- **New Technologies**
- **Distributed Energy Resources / Combined Heat & Power**
- **Water Efficiency**
- **Operations & Maintenance**
- **Sustainable Design & Construction**

Overview

Abundant energy from the sun, the wind, plants, and the Earth itself—renewable energy—can provide some or all of your federal facility's needs for heating, cooling, and electricity. The U.S. Department of Energy's Federal Energy Management Program (FEMP) has developed ways to help you tap into these clean, secure energy resources.



By using renewable energy, you can meet federal goals, help to conserve our natural resources, and increase the nation's energy security. Renewable resources can also contribute significantly to the energy security of your individual federal facility. They provide a naturally occurring, continual flow of energy, at or near the place where the energy is used.

This can be important to energy managers, like you, who have to make sure your facility will keep operating even if utility power is disrupted by reductions in supplies or national emergencies.

Your agency may have already started or completed projects that help to meet [federal requirements](#) and goals for using renewable energy. If not, FEMP can [help you get started](#).

Benefits

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NEWS

[Training Workshop to Help Professionals Achieve Energy Management Goals](#)
February 10, 2005

[Upcoming Web Cast Introduces Sustainability in Federal Buildings](#)
January 5, 2005

[More News](#)

EVENTS

[Design Strategies for Low-Energy, Sustainable, Secure Buildings](#)
Spring 2005

[Design Strategies for Low-Energy, Sustainable, Secure Buildings](#)
August 17-19, 2005

[More Events](#)

FEATURES

NEW!

EPA Support Programs



- Green Power Partnership
 - Members include Dept of Energy, Air Force, Navy Region South, Army, GSA, NASA Johnson Space Center, USDA HQ, NPS Independence NP
 - Letter of Intent available at
<http://www.epa.gov/greenpower/pdf/gpp-loi.pdf>
- Green Power Leadership Awards (10/04)
 - Green Power Partner of the Year Award – GSA
 - Green Power Purchasing - Edwards AFB
 - http://www.epa.gov/greenpower/winners/2004_awards.htm
- Regional “Champion” Awards
 - *EPA Regions 9 and 10*

U.S. Environmental Protection Agency

Green Power Partnership

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Across America, consumers increasingly have a choice when they buy electricity. With that choice comes the ability to buy green power.

Green power is an environmentally friendly electricity product that is generated from renewable energy sources. Buying green power is easy, and it offers a number of environmental and economic benefits over conventional electricity.

EPA's Green Power Partnership provides assistance and recognition to organizations that demonstrate environmental leadership by choosing green power.

This Web site will help you make a better choice by providing you with everything you need to know about green power and how to purchase it.

[Buy Green Power](#)[Green Power Locator](#)[Join the Partnership](#)

What's New

[Top 25 Green Power Purchasers](#)[Guide to Purchasing Green Power](#)[2004 Green Power Leadership Award Winners](#)[Green Power Planet Newsletter](#)[Want to Find Out More?](#)[Contact Us](#)

IELC Members

- What you can do to get involved
 - Coordinate with your regional “energy” contact
 - Determine if your region has met the 2.5% goal
 - Sign on with EPA Green Power Partnership
 - Investigate green power/tag purchases & on-site renewable projects
 - Incorporate green power into your EMS
 - Do your part to help meet our goals!

Renewable Energy Contacts

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